

Amendments to the Claims:

Claims 1-38 are pending in this application. Claims 1, 4, 10, 18-20, 24, 28 and 33-38 are independent. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (CURRENTLY AMENDED): A lens device comprising:

variator lens means for performing a zooming operation;

zoom operating means for operating said variator lens means;

information output means for outputting operation information sent from said zoom operating means and for outputting zooming position information of said variator lens means to an external image device;

information input means for receiving control information, which is used for controlling said variator lens means, sent from [[an]] the external image device, the received control information being generated at the external image device based on the zooming position information sent from said information output means and also based on zoom operation information produced by a zooming operation at the external image device; and

variator control means for controlling a zooming operation of said variator lens means according to the inputted control information received at said information input means.

2 (ORIGINAL): The lens device according to claim 1, wherein the control information contains information on at least one of a direction and a speed given to said variator lens means.

3 (ORIGINAL): The lens device according to claim 1, wherein said information output means outputs the operation information when said variator lens means is placed at a tele end.

4 (CURRENTLY AMENDED): An imaging apparatus comprising:

imaging means for imaging an object and for outputting an image signal;

information input means for receiving external zoom operating information and zoom position information ~~to be supplied to~~ from external variator lens means detachably attached to said image apparatus;

zoom operating means for receiving internal zoom operating information ~~to be supplied to said external variator lens means~~ produced by a zooming operation within said image apparatus; and

information output means for generating and outputting optical zooming control information to be used for controlling a zooming operation of said external variator lens means according to the inputted external zoom operating information and ~~the inputted zoom position information~~ supplied from said external variator means, and the internal zoom operating information received from said zoom operating means.

5 (ORIGINAL): The imaging apparatus according to claim 4, which further comprises:

electronic zooming means for performing electronic enlargement processing on an image represented by the image signal; and

electronic zooming control means for controlling said electronic zooming means according to the inputted external zoom operating information, the inputted zoom position information and the internal zoom operating information.

6 (ORIGINAL): The imaging apparatus according to claim 4, wherein the external zoom operating information and the internal zoom operating information contain information on at least one of a direction and a speed given to said external variator lens means.

7 (ORIGINAL): The imaging apparatus according to claim 5, wherein said electronic zooming means performs the enlargement processing when the zoom position information indicates a tele end.

8 (ORIGINAL): The imaging apparatus according to claim 4, wherein said information output means gives the external zoom operating information precedence over the internal zoom operating information when the external zoom operating information indicates that a zooming operation is being performed.

9 (ORIGINAL): imaging apparatus according to claim 5, wherein said electronic zooming control means gives the external zoom operating information precedence over the internal zoom operating information when the external zoom operating information indicates that a zooming operation is being performed.

10 (CURRENTLY AMENDED): An imaging system comprising:

a lens device having:

a variator lens means for performing a zooming operation;

lens-side zoom operating means for operating said variator lens means;

lens-side information output means for outputting lens-side zoom operating information and zoom position information on a zoom position of said variator lens means, which are received from said lens-side zoom operating means;

lens-side information input means for receiving optical zoom control information to be used for controlling said variator lens means; and

variator control means for controlling a zooming operation of said variator lens means according to the received control information, and
an imaging apparatus having:

imaging means for imaging an object and for outputting an image signal;

camera-body-side information input means for receiving the lens-side zoom operating information and zoom position information supplied from said lens-side information output means;

camera-body-side zoom operating means for receiving camera-body-side zoom operating information to be supplied to said variator lens means; and

camera-body-side information output means for generating optical zooming control information to be used to control a zooming operation of said variator lens means, according to the received lens-side zoom operating information and ~~the received~~ zoom position information, and also according to the camera-body-side zoom operating information, and for outputting the optical zooming control information to said lens-side information input means.

11 (ORIGINAL): The imaging system according to claim 10, wherein said imaging apparatus further comprises:

electronic zooming means for performing electronic enlargement processing on an image represented by the image signal; and

electronic zooming control means for controlling said electronic zooming means according to the lens-side zoom operating information, the zoom position information and the camera-body-side zoom operating information.

12 (ORIGINAL): The imaging system according to claim 10, wherein the optical zooming control information contains information on at least one of a direction and a speed given to said variator lens means.

13 (ORIGINAL): The imaging system according to claim 10, wherein said lens-side information output means outputs the lens-side zoom operating information when said variator lens means is placed at a tele end.

14 (ORIGINAL): The imaging system according to claim 11, wherein said electronic zooming control means performs the enlargement processing when the zoom position information indicates a tele end.

15 (ORIGINAL): The imaging system according to claim 10, wherein said camera-body-side information output means gives the lens-side zoom operating information precedence over the camera-body-side zoom operating information when the lens-side zoom operating information indicates that a zooming operation is being performed.

16 (ORIGINAL): The imaging system according to claim 11, wherein said electronic zooming control means gives the lens-side zoom operating information precedence over the

camera-body-side zoom operating information when the lens-side zoom operating information indicates that a zooming operation is being performed.

17 (ORIGINAL): The imaging system according to claim 10, wherein a cycle of transmission and reception of information between said lens-side information output means and said camera-body-side information input means and between said lens-side information input means and said camera-body-side information output means is nearly equal to a cycle of a standard television vertical synchronization signal.

18 (CURRENTLY AMENDED): A computer readable storage medium for storing a program causing a computer to execute the steps of:

outputting operation information, which is obtained when a variator lens is operated, and zoom position information which represents a zoom position of said variator lens, to an external imaging device;

inputting control information, which is used for controlling said variator lens, sent from [[an]] the external device, the control information being generated at the external imaging device based on the operation information and zoom position information outputted at the outputting step and also based on zoom operation information produced internally at the external imaging device; and

controlling said variator lens according to the inputted control information.

19 (CURRENTLY AMENDED): A computer readable storage medium for storing a program causing a computer to execute the steps of:

imaging an object and outputting an image signal by an imaging apparatus;

receiving external zoom operating information and zoom position information ~~to be supplied to~~ from an external variator lens detachably attached to the imaging apparatus;

receiving internal zoom operating information provided at the imaging apparatus to be supplied to said external variator lens; and

generating and outputting optical zooming control information to be used for controlling a zooming operation of said external variator lens according to the inputted external zoom operating information and ~~the inputted~~ zoom position information provided from said external variator lens, and also based on the internal zoom operating information provided from the imaging apparatus.

20 (ORIGINAL): A lens device comprising:

variator lens means for performing a zooming operation;

zoom operating means for operating said variator lens means;

information output means for outputting first zoom operating information, which is received from said zoom operating means, and zoom position information representing a zoom position of said variator lens means;

information input means for receiving second zoom operating information and zooming inhibition information from an external device; and

variator control means for controlling a zooming operation of said variator lens means according to the first zoom operating information, the inputted second zoom operating information and the inputted zooming inhibition information.

21 (ORIGINAL): The lens device according to claim 20, wherein the first zoom operating information and the second zoom operating information contain information on at least one of a direction and a speed given to said variator lens means.

22 (ORIGINAL): The lens device according to claim 20, wherein said information output means outputs the first zoom operating information when said variator lens means is placed at a tele end.

23 (ORIGINAL): The lens device according to claim 20, wherein said variator control means gives the first zoom operating information precedence over the second zoom operating information when the first zoom operating information indicates that a zooming operation is being performed.

24 (ORIGINAL): A camera apparatus comprising:

imaging means for imaging an object and for outputting an image signal;

information input means for receiving first zoom operating information and zoom position information to be supplied to external variator lens means;

zoom operating means for receiving second zoom operating information to be supplied to said external variator lens means;

information output means for outputting the second zooming control information and optical zooming inhibition information to be used for inhibiting a zooming operation of said external variator lens means;

electronic zooming means for performing electronic enlargement processing on an image represented by the image signal; and

electronic zooming control means for controlling said electronic zooming means according to the first zoom operating information, the zoom position information and the second zoom operating information.

25 (ORIGINAL): The camera apparatus according to claim 24, wherein the first zoom operating information and the second zoom operating information contain information on at least one of a direction and a speed given to said external variator lens means.

26 (ORIGINAL): The camera apparatus according to claim 24, wherein said electronic zooming means performs the enlargement processing and said information output means outputs the optical zooming inhibition information when the first zoom operating information and the second zoom operating information indicate a tele end.

27 (ORIGINAL): The camera apparatus according to claim 24, wherein said electronic zooming control means and said information output means give the first zoom operating information precedence over the second zoom operating information when the first zoom operating information indicates that a zooming operation is being performed.

28 (CURRENTLY AMENDED): A camera system comprising:

a lens device having:

a variator lens means for performing a ~~zooming operation~~ zooming operation;

lens-side zoom operating means for operating said variator lens means;

lens-side information output means for outputting first zoom operating information, which is received from said lens-side zoom operating means, and zoom position information on a zoom position of said variator lens means;

lens-side information input means for receiving second zoom operating information and zooming inhibition information from an external device; and

variator control means for controlling a zooming operation of said variator lens means according to the received second zoom operating information and the zooming inhibition information and the first zoom operating information, and
an imaging apparatus having:

imaging means for imaging an object and for outputting an image signal;

camera-body-side information input means for receiving the first zoom operating information and zoom position information from said lens-side information output means;

camera-body-side zoom operating means for receiving the second zoom operating information to be supplied to said variator lens means; [[and]]

camera-body-side information output means for outputting said lens-side information input means the second zoom operating information and the optical zooming inhibition which is used for inhibiting said variator lens means from performing a zooming operation;

electronic zooming means for performing electronic enlargement processing on an image represented by the image signal; and

electronic zooming control means for controlling said electronic zooming means according to the first zoom operating information, the zoom position information and the second zoom operating information.

29 (ORIGINAL): The camera system according to claim 28, wherein the first zoom operating information and the second zoom operating information contain information on at least one of a direction and a speed given to said external variator lens means.

30 (ORIGINAL): The camera system according to claim 28, wherein said lens-side information output means outputs the first zoom operating information said electronic zooming control means performs the enlargement processing when said variator lens means is placed at a tele end.

31 (ORIGINAL): The camera system according to claim 28, wherein said camera-body-side information output means and said electronic zooming means give the first zoom operating information precedence over the second zoom operating information when the first zoom operating information indicates that a zooming operation is being performed.

32 (ORIGINAL): The camera system according to claim 28, wherein a cycle of transmission and reception of information between said lens-side information output means and said camera-body-side information input means and between said lens-side information input means and said camera-body-side information output means is nearly equal to a cycle of a standard television vertical synchronization signal.

33 (ORIGINAL): A computer readable storage medium for storing a program causing a computer to execute the steps of:

outputting first zoom operating information, which is obtained when a variator lens is operated, and zoom position information which represents a zoom position of said variator lens;

inputting second zoom operating information and zooming inhibition information, which are received from an external device; and

controlling said variator lens according to the inputted second zoom operating information, the inputted zooming inhibition information and the first zoom operating information.

34 (ORIGINAL): A computer readable storage medium for storing a program causing a computer to execute the steps of:

imaging an object and outputting an image signal;

receiving first zoom operating information and zoom position information to be supplied to an external variator lens; receiving second zoom operating information to be supplied to said external variator lens;

outputting the second zooming control information and optical zooming inhibition information to be used for inhibiting said external variator lens from performing a zooming operation; and

performing electronic zooming for electronically enlarging an image represented by the image signal according to the first zoom operating information and the second zoom operating information and the zoom position information.

35 (CURRENTLY AMENDED): A lens control system comprising:

a first device having optical variator means for optically changing a magnification of an image;

a second device having electronic variator means for electronically enlarging an image by signal processing; and

first and second variator operating members respectively provided in said first and second devices, wherein, when said optical variator means is operated, said optical variator means is controlled in said first device according to information for operating said first and second variator operating members, wherein, when said electronic variator means is operated, said electronic variator means is controlled in said second device according to information for operating said first and second variator operating members, and wherein, ~~during~~ when said electronic variator means is operated, said first device inhibits said optical variator means from operating.

36 (CURRENTLY AMENDED): A camera system comprising:

a lens device having an optical variator lens for optically changing a magnification of an image;

a camera device having electronic variator means for electronically enlarging an image by signal processing;

a lens-device-side variator operating member; and a camera-device-side variator operating member,

wherein, when said optical variator lens is operated, said optical variator lens is controlled in said lens device according to information for operating said lens-device-side and camera-device-side variator operating members,

wherein, when said electronic variator means is operated, said electronic variator means is controlled in said camera device according to information for operating said lens-device-side and camera-device-side variator operating members, and

wherein, ~~during~~ when said electronic variator means is operated, a signal causing said lens device to inhibit said optical variator lens from operating is transmitted to said lens device.

37 (CURRENTLY AMENDED): A camera device for use in a camera system having a lens device having an optical variator lens for optically changing a magnification of an image, a lens-device-side variator operating member and a camera-device-side variator operating member, said camera device comprising:

electronic variator means for electronically enlarging an image by signal processing,

wherein, when said optical variator lens is operated, said optical variator lens is controlled in said lens device according to information for operating said lens-device-side and camera-device-side variator operating members,

wherein, when said electronic variator means is operated, said electronic variator means is controlled in said camera device according to information for operating said lens-device-side and camera-device-side variator operating members, and

wherein, ~~during~~ when said electronic variator means is operated, a signal causing said lens device to inhibit said optical variator lens from operating is transmitted to said lens device.

38 (CURRENTLY AMENDED): A camera device for use in a camera system having a camera device having electronic variator means for electronically enlarging an image by signal processing, a lens-device-side variator operating member, and a camera-device-side variator operating member, said ~~a lens device~~ lens-device-side comprising:

an optical variator lens for optically changing a magnification of an image,

wherein, when said optical variator lens is operated, said optical variator lens is controlled in said lens device according to information for operating said lens-device-side and camera-device-side variator operating members,

wherein, when said electronic variator means is operated, said electronic variator means is controlled in said camera device according to information for operating said lens-device-side and camera-device-side variator operating members, and

wherein, ~~during~~ when said electronic variator means is operated, a signal causing said lens device to inhibit said optical variator lens from operating is transmitted to said lens device.